



SAMSUNG PORTABLE AIR CLEANER / PURIFIER (AX60T5080 & AX90T7080)

Setup & User Guide for Schools

Authored by the Ministry of Education

Foreword

Portable Air Cleaners are being distributed to all state owned and state integrated schools, to use at their discretion in spaces that may have a higher risk of COVID-19 airborne transmission.

These devices are a supplementary solution that can reduce COVID-19 airborne transmission by filtering and recirculating the air within a space. They offer a modest improvement to air quality and can help compensate when air flow is very low, and in spaces that are challenging to ventilate well. They also offer some general benefits in terms of reducing pollen, dust and other airborne pollutants.

Air cleaner effectiveness is dependent on them being correctly sized for the room, running on a high fan speed throughout the day, and having a quality HEPA filter. **They do not replace good ventilation practices in any circumstances**, and do not reduce CO₂ levels or supply fresh air.

As a mitigant for COVID-19 airborne transmission, air cleaners are likely to be more effective in areas such as staff rooms, music rooms, high-use meeting and break-out rooms given the activities that occur in these spaces. They can also be used in classrooms and other spaces when adverse weather conditions make it less practical to adequately open the windows.

Use this guide to ensure your air cleaners are optimally configured and used across the indoor spaces within the school. We have also provided explanatory posters that are to be hung near a device when it is positioned in a space. Device filters should be replaced every 6-12 months.

Further guidance is available online: <https://temahau.govt.nz/ventilation>. If you have questions or can't resolve ventilation issues please contact your Ministry Property Advisor, or the Ministry's ventilation team on ventilation.mailbox@education.govt.nz.

Contents

PART A: SETTING UP YOUR AIR CLEANER	4
1. Unboxing and powering on your air cleaner	4
2. Safety, ongoing cleaning and filter replacement.....	6
3. Getting to know your air cleaner	7
4. Functions available but not used in schools	8
PART B: USING YOUR AIR CLEANER.....	9
1. What does an air cleaner do?	9
2. Where and when to position air cleaners within the school.....	10
3. Where to position your air cleaner in a room	11
PART C: GET MORE HELP	12

PART A: SETTING UP YOUR AIR CLEANER

The following imagery shows a large air cleaner (AX90T7080). The same instructions apply for the medium air cleaner (AX60T5080) which only has a single filter and fan unit.

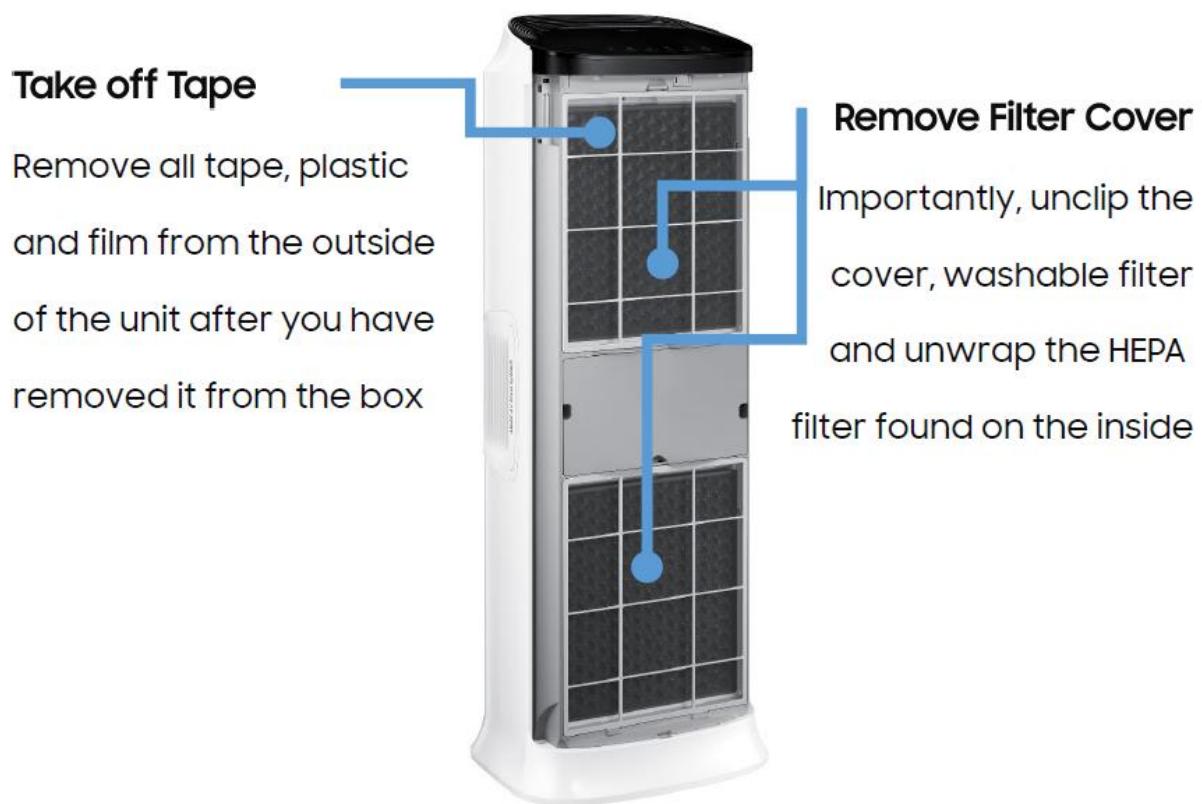
1. Unboxing and powering on your air cleaner

Check the packaging and the device for any signs of damage during transit. They are very well-built but do not have hardened casings and are subject to break if dropped, thrown or treated roughly. They also are not waterproof.

Do not unpackage devices that you may want to return or have freighted to other locations. Devices that do not have their factory packaging cannot easily be returned or redistributed.

Please let Samsung know straight away if it's damaged so a replacement can be arranged. To do this contact Samsung customer support on 0800 726 786 and select Option 3, following the steps explained here: <https://temahau.govt.nz/covid-19/advice-schools-and-kura/ventilation-schools/device-support>.

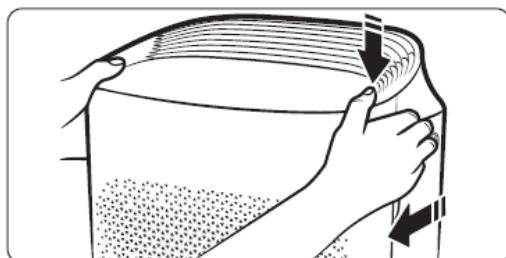
Next, unbox the device and remove all the packaging. In particular:



Follow the detailed steps shown on the following pages to access the filters, remove their packaging and refit them.

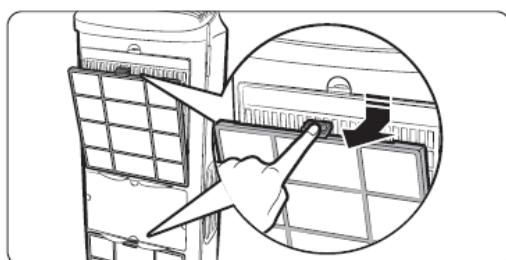
Removing the filters

When using the 2-in-1 filters for the first time or replacing them with a new set, remove the vinyl packaging first.

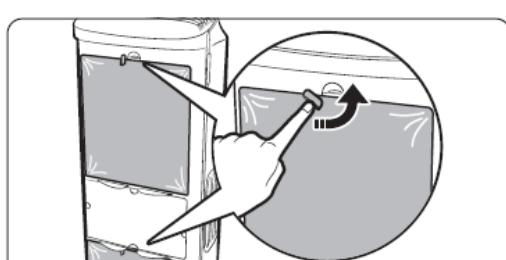


STEP 1 Remove the front panel.

- Use your thumbs to press on the top of the product and pull the front panel forward with other fingers.

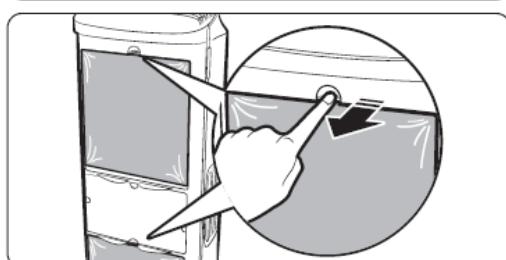


STEP 2 Remove the pre-filters.

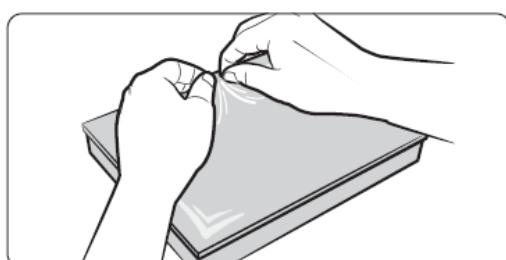


STEP 3 Release the 2-in-1 filters.

- Rotate the filter holder 90° anticlockwise to release the filter.

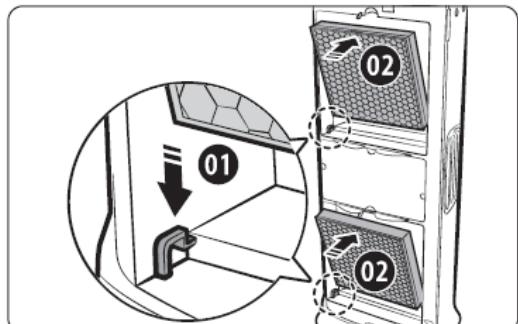


STEP 4 Remove the 2-in-1 filters.



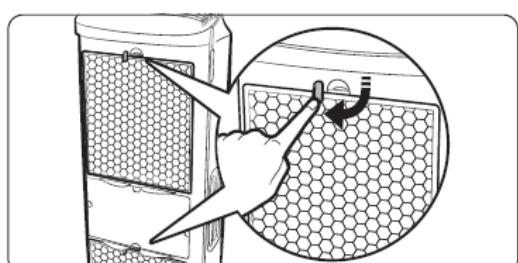
STEP 5 Remove the vinyl packaging from the filters.

Assembling the filters



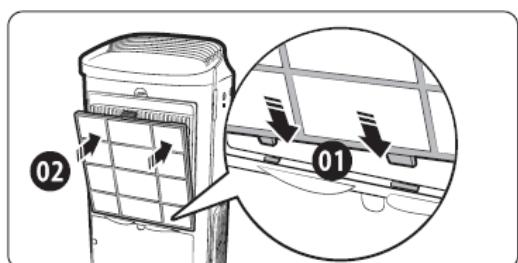
STEP1 Place the 2-in-1 filters

- Let the filters sit inside the grooves at the bottom.
- Check the insert direction before placing the filters.



STEP 2 Secure the 2-in-1 filters.

- Rotate the filter holder 90° clockwise to hold the filter in place.



STEP 3 Place the pre-filters.

Before relocating the air cleaner to its intended space in your school plug it in, turn it on and turn the fan setting to **FULL** on to test its functions to further check there has been no damage during transit.

2. Safety, ongoing cleaning and filter replacement

Please refer to the Samsung user manual in the box for detailed safety, cleaning and maintenance instructions. Regarding filter cleaning and replacement:

- Air cleaners are fitted with a **pre-filter screen**, very similar to those found in heat pumps. The screen stops dust and other matter entering into the actual device filter or fan. Clean the pre-filter screen using a vacuum cleaner, then wash (with detergent and lukewarm water) and dry the pre-filter **every 4-6 weeks**.
- The 2-in-1 carbon + HEPA filter cartridges are **not designed to be cleaned or washed**. They are to be replaced **every 6-12 months** with new filters, which can be purchased at a discounted price using voucher code '3DUCATION', from <https://www.samsung.com/nz/air-care/air-purifier/>.

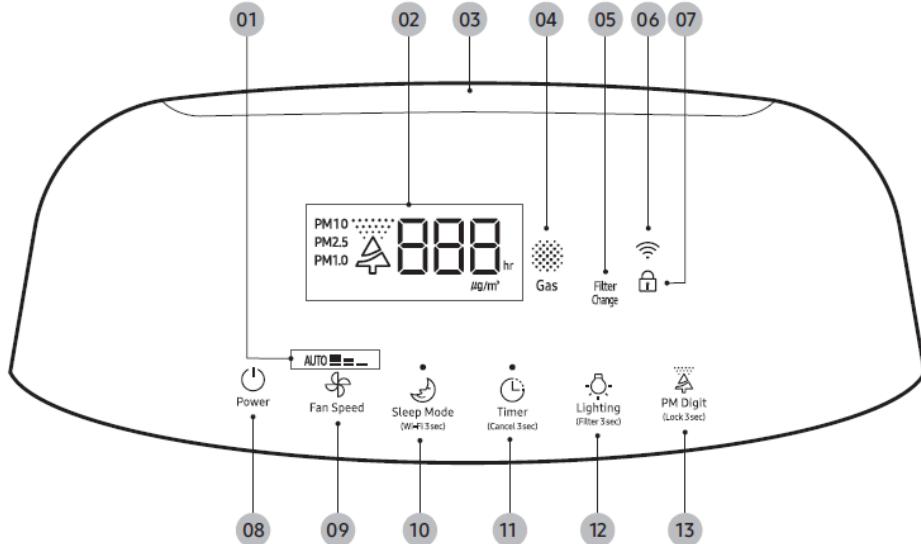
3. Getting to know your air cleaner

In regular operation you will typically only need to use the following three buttons:



1	Power Button	Tap to turn the air cleaner on or off.
2	Fan Speed	Tap to cycle through and set it to HIGH .
3	Child Lock	Hold the PM Digit button for 3 seconds to lock or unlock.

The following explains the display and all buttons on the device:



01	Current fan speed	08	Power button
02	PM concentration / timer indicator	09	Fan speed button
03	Air quality indicator (coloured bar)	10	Sleep mode / Wi-Fi button
04	Gas pollution indicator	11	Timer on / off button
05	Filter replacement reminder	12	Lighting / filter reset button
06	Wi-Fi function indicator	13	Air quality / lock button
07	Lock indicator		

4. Functions available but not used in schools

The Samsung air cleaners include some functions and advice that is not immediately relevant to the anticipated day-to-day school settings or usage as part of reducing the risk of COVID-19 airborne transmission.

Wi-Fi control:

Samsung air cleaner devices are able to be connected over Wi-Fi to the Samsung SmartThings smartphone app, which allows them to be controlled and scheduled remotely.

At time of writing, the Samsung Wi-Fi remote control functions are designed for residential Wi-Fi networks and are unlikely to be configurable or usable over school or corporate Wi-Fi networks.

Air quality indicators, and the AUTO fan setting:

The device will sense and display Particulate Matter (PM) levels in the room, at the different PM sizes (i.e. PM10, PM2.5, PM1.0). The colour of the indicators will change from **blue** (good), to **green**, to **orange** and **red** (very poor). The AUTO fan setting then responds to the indicated PM levels.

These indicators do NOT sense the level of COVID-19 or other airborne illnesses in the room. To have an effect on reducing COVID-19 airborne transmission, an air cleaner is to be run on its highest fan setting (not AUTO) throughout the school day.

Closing windows and doors:

Air cleaner documentation and literature may state that they will be most effective in improving air quality, by reducing the level of Particulate Matter (PM) in the air, when all windows and doors are closed. This is to ensure there is not a continuous supply of new PM entering the room.

There is no substitute for fresh air, and air cleaners do not reduce CO₂ levels. Use air cleaners in conjunction with opening windows and doors as much as practical, and whenever possible while keeping the room at a comfortable temperature.

Air cleaners offer a modest improvement to air quality. This improvement is beneficial especially when windows and doors cannot be adequately opened, but the presence and use of an air cleaner should not be the reason why windows and doors are fully closed.

PART B: USING YOUR AIR CLEANER

1. What does an air cleaner do?

Air cleaners filter tiny bugs, particles and other pollutants out of the air in the room. A fan inside the air cleaner pulls in the air and passes it through a high-quality HEPA¹ filter, then recirculates it back into the room.

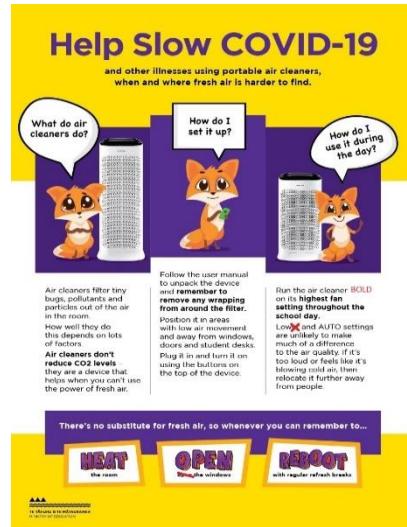
COVID-19 and other airborne illnesses can hover in and travel through the air around us. The filtering performed by an air cleaner can remove them from the air and reduce the risk of transmission.

Air cleaners do not reduce CO₂ levels, create fresh air or remove moisture from the air.

Providing a ready supply of fresh air into a room, and a way for the old air to exit, means any pollutants in the room will also exit. This will achieve a better reduction in airborne pollutants and provide other “fresh air” benefits to the room’s occupants, over what an air cleaner is able to achieve.

That’s why air cleaners are a supplementary or interim measure to improving air quality in spaces where good ventilation is difficult to achieve. Where this is the case, the focus should remain on providing longer term and sustainable ventilation strategies and solutions, working with your Ministry Property Advisor.

This poster explains what air cleaners do and how they should be positioned and used. An electronic version of this and other posters can be [downloaded from our website](#).



¹ High-Efficiency Particulate Absorbing (HEPA) is an efficiency standard of air filter.

2. Where and when to position air cleaners within the school

Air cleaners will provide the most benefit in spaces that are difficult to supply the right amount of fresh air to meet the needs of the space's occupants. For example:

Breakout and quiet spaces	are often smaller rooms and some not originally designed to house a number of people for a prolonged period. Often doors between the breakout room and the main teaching space are closed to provide a quiet and separated environment. These spaces can become under-ventilated, when used in this way for a prolonged period.
Event in larger spaces	can involve larger numbers of people congregating in rooms or halls for prolonged periods, and the more active the types of activities, the higher the demand on the space's ventilation. Air cleaners offer some supplementary benefits during such events.
Learning spaces (classrooms)	are generally designed with good ventilation in mind, to suit a large number of occupants doing classroom-based activities through the school day. There is no substitute for fresh air in these spaces, however there may be times such as during very bad weather, or when doing more vigorous activities, that ventilation becomes challenging.
Meeting rooms	are often smaller rooms, used intermittently and for short periods by a group of people. If it's a private or sensitive discussion, windows and doors may tend to be closed. This can result in the room becoming under-ventilated very quickly.
Music and activity rooms	are spaces where the activity type causes people to move and breathe more, increasing the possibility of airborne transmission should one of the room's occupants have COVID-19 or another illness.
Reception areas	are typically well ventilated due to the entry/exit doors, with rarely many people present for prolonged periods. Air cleaners are likely to offer very little benefit in these spaces.
Sick rooms	are spaces that may be higher risk due to illness being present, however noting people should not remain at school for a prolonged period if showing signs of illness, and those around them should consider face masks to reduce the risk.
Staff offices	that are used by multiple adults in close proximity, especially if not originally designed to have that number of adults in it concurrently, can present a ventilation challenge.
Staff rooms	are spaces that have close interaction between adults, who are often unmasked because they are eating or drinking. The number of adults in the room can increase quickly at break times, resulting in a short-term ventilation challenge.



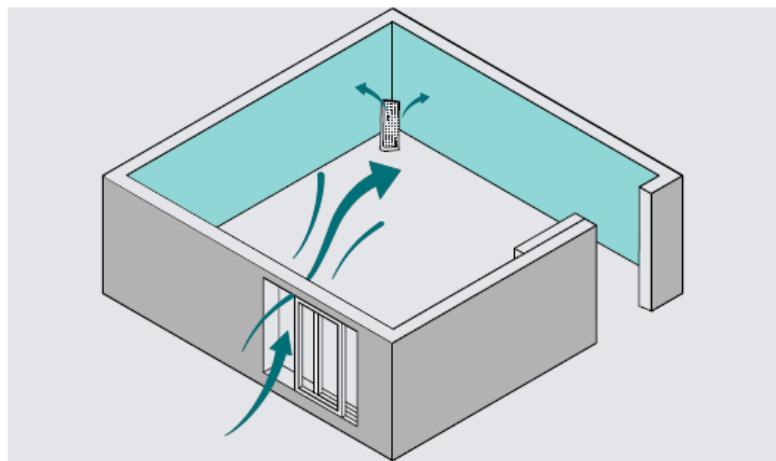
3. Where to position your air cleaner in a room

Air cleaners should be positioned where they offer the most benefit and cause the least distraction to the people in the space. At times, this may be limited by the space's layout and the availability of wall power outlets.

As best you can, follow these guidelines:

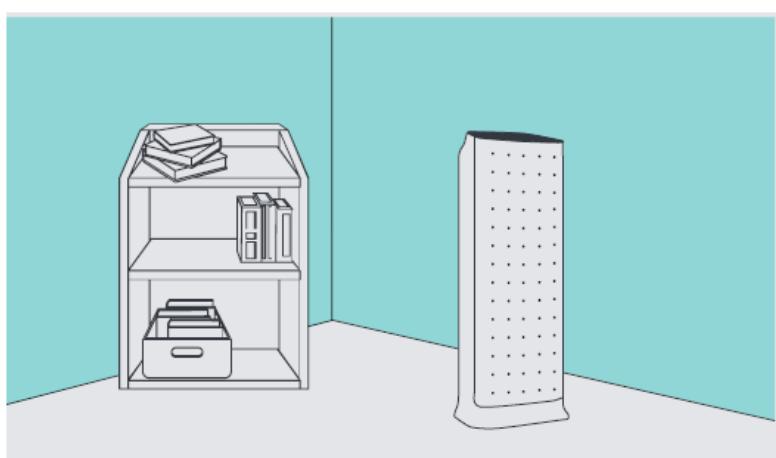
DO position it away from open doors and windows, where there is less air movement within the room.

This is where the device will add the most benefit to the air quality.

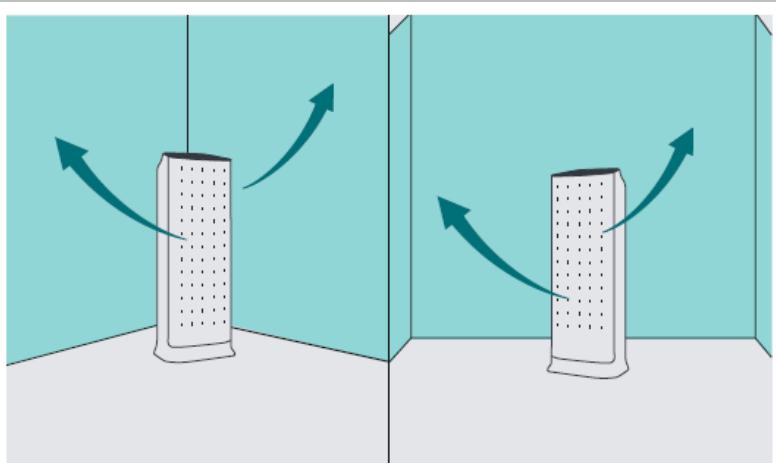


DO position the device so it is not right next to people, preferably having it more than 1-2 metres away.

Air cleaners make noise and the airflow they create can be perceived as a cold draught.



DO leave a 20-30cm space between the air cleaner and the wall or nearest objects, so as to not block its airflow.



PART C: GET MORE HELP

- Further guidance is available online: <https://temahau.govt.nz/ventilation>.
- If you have questions or can't resolve ventilation issues please contact your Ministry Property Advisor, or the Ministry's ventilation team on ventilation.mailbox@education.govt.nz.
- More details about Samsung products can be found on the Samsung NZ web site: <https://www.samsung.com/nz/air-care/air-purifier/>.
- To purchase additional Samsung air cleaner devices or replacement filters at a discounted price, please visit the online store at <https://www.samsung.com/nz/air-care/air-purifier/> and use voucher code "3DUCATION" at checkout.